

REMARKS/ARGUMENTS

Claims 1 and 12 are currently amended in order to point out with clarity the Applicant's computer systems and methods for processing a paper document. The Applicant intends no change of scope by these amendments. Claims 9-11 and 20-22 have been previously withdrawn. Claims 1-8 and 12-19 are pending.

A. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

The Examiner has rejected claims 1-5, 7, 8, 12-16, 18, and 19 under 35 U.S.C. § 103 as being unpatentable over US patent no. 6,272,484 to Martin et al. ("Martin") in view of US patent no. 6,562,077 to Bobrow et al. ("Bobrow").¹ The Applicant, addressing first independent claims 1 and 12, traverses these rejections for the following reasons.

CAPTURING A PAPER DOCUMENT AND USE OF THE CAPTURED IMAGE ARE KEY ELEMENTS OF THE PRESENT INVENTION

The Applicant first traverses the Examiner's contention that the limitation in claim 1 reciting "capturing means for capturing an image of a paper document to produce captured image information" lacks any criticality. Indeed, this limitation and the subsequent processing of captured image information by the further elements of system claim 1, and similar steps recited in method claim 12, are important to the present invention.

Each and every element of a claim must be fully and equally considered. The M.P.E.P. states the following in this regard:

Office personnel should first analyze the claims as a whole in light of and consistent with the written description, considering all claim limitations. When evaluating the scope of a claim, every limitation in the claim must be considered.²

Furthermore, claims and their elements must be read in view of the specification of which they are a part.

¹ In a telephone conversation, the Examiner indicated that this obviousness rejection is actually over Martin in view of Bobrow, and not over Martin alone as was stated in the Action mailed.

² M.P.E.P. § 2144.08, p. 2100-140 (emphasis added). All M.P.E.P. page references herein are to edition 8, revision 1 of February, 2003.

During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification.³

Here, the written description makes abundantly clear that the limitations "capturing an image of a paper document" and the processing of the "captured image information" are not limitations that "lack[s] any criticality". They must be fully considered by the Examiner.

In fact, the present invention provides computer systems and methods that solve prior art information processing problems particularly associated with paper documents. The Background of the Invention identifies these problems:

Most such people do, however, still read paper publications and may want to follow up something which they have seen on paper ... This can be done using the internet, but there are two problems. First, the person needs to remember to do it at a time when they have the facility to do it. Second, they need to find the relevant information on the internet. The present invention is concerned with tackling these problems.⁴

The computer systems and methods for processing paper documents provided by this invention solve there problems in the manner briefly summarized as follows:

The user can therefore capture the required information at the time of reading the document, and the system then, perhaps at a later convenient time, establishes a link between the captured information and corresponding "electronic" information.⁵

For example, by means of this invention, a user may scan paper documents such as newspaper articles, product advertisements, book reviews, and business journal articles, and the like, and then perform a document-related action such as retrieving electronic versions of the scanned document and similar documents, electronically browsing the document, electronically ordering a complete copy of the document, and the like.⁶

In addition, the specification not only identifies the importance of these limitations but also teaches their particular arrangement, or combination, here their subsequent processing. The independent claims recite this arrangement and combination. Briefly, a goal of the subsequent processing is to perform an action, such as view, reprint, order, follow-up, and similar, with

³ M.P.E.P. § 2111, p. 2100-40 (emphasis added).

⁴ The Specification, page 1, lines 8-14.

⁵ The Specification, page 1, lines 28-30.

⁶ The Specification at, for example, page 2, table at line 4.

respect to the electronic original of the paper document. Accordingly, first, the identity of this electronic original is established by matching the paper document's captured image with images stored in a document image database.⁷ Then, the action to be performed is determined from two sources: an action option entered by the user immediately after capture of the paper document's image, and action information associated with the electronic original in the document database.⁸

Accordingly, capturing an image of a paper document and subsequent use of the captured image are elements of this invention that must be fully considered by the Examiner.

MARTIN AND BOBROW DO NOT ESTABLISH *PRIMA FACIE* OBVIOUSNESS OF THIS INVENTION BECAUSE THEY DO NOT TEACH ALL ITS ELEMENTS IN THEIR RECITED COMBINATION

It is well known that to establish *prima facie* obviousness, prior art references must teach, *inter alia*, all elements of the claimed invention.⁹ However, it is equally important that the references themselves, and not the Applicant's disclosure, also teach the claimed elements arranged and functioning in their claimed combination.¹⁰ This is true even for anticipation:

The elements must be arranged as required by the claim, but this is not an *ipsisimis verbis* test, i.e., identity of terminology is not required.¹¹

It is impermissible hindsight to rely on Applicant's own teachings for this or any element of *prima facie* obviousness. If the only evidence of record of the claimed combination is the Applicant's disclosure, then the references do not establish *prima facie* obviousness.

Hence, the references must teach not only "capturing an image of a paper document", but also its subsequent processing including the "producing a computer instruction as to action to be taken, the produced instruction determined from the determined respective action information and from the user-selected option". It is submitted that these necessary teachings cannot be found in the combination of Martin with Bobrow. Briefly, Martin addresses only the problem of changeable content of online electronic documents by storing for the user an original image of

⁷ The Specification at, for example, page 8, lines 14-17.

⁸ The Specification at, for example, page 9, lines 5-24.

⁹ See, for example, M.P.E.P. § 2142, p. 2100-124.

¹⁰ The likelihood of success of the claimed combination must also be taught.

¹¹ M.P.E.P. § 2131, p. 2100-70 (emphasis added).

the document along with a pointer to a current image of the document. Bobrow discloses no more than organizing a corpus of document images into groups of structurally similar documents using a hierarchy of primitive structural image elements.

In more detail, Martin purports to solve the problem of the changeable content of an online electronic document, for example, of a web page, a spreadsheet file, a word processing document, and the like, by saving the network location of the electronic document's current version in association with the network location of an image file representing the document's original version (which may be the same or different than the current version).¹² A user can retrieve these saved network locations and their corresponding document images by selecting a thumbnail of the image of the document.

Bobrow discloses no matching or searching is disclosed, much less image matching. Although Martin does disclose that a computer may have an attached scanner, absolutely no use is taught for the scanner.¹³ In particular, there is no disclosure that the scanner scans a paper document nor uses such a scanned image as recited in the present invention. In the absence of explicit evidence in the prior art (not in the Applicant's own disclosure), it is impermissible to claim that the disclosed scanner could be so used.

In summary, Martin neither discloses, teaches, nor suggests (i) capturing an image of a paper document, and (ii) processing this captured image in order to perform an action related to a document image in an image database that matches the captured image, where the action is determined in dependence both on action information associated with the document in the database and on a user selected option.

Turning to Bobrow, this reference is directed to organizing a large corpus of document images according to a hierarchy of user-specified layout components, features, and the like, all of which specify particular structural aspects of individual documents.¹⁴ These layout components, features, and the like may subsequently be used as indexes and in document searches. In the

¹² See Martin at, for example, col. 1, lines 57-61; and col. 6, lines 33-40; and col. 7, lines 12-17, and 41-46, and lines 62-64; and col. 8, lines 46-61.

¹³ Martin, col. 5, lines 24-28 (the only use of the word "scanner" in this entire patent document).

¹⁴ See Bobrow at, for example, col. 1, lines 23-25.

particular sections of Bobrow cited by the Examiner, higher level document indexes, known as "genre models", are disclosed as groups of layout components, features, and the like which define the configuration of an entire document.¹⁵ These sections further disclose a programming interface by which genre models can be defined, and a document search interface by which a user can retrieve documents matching user-selected genre models, or user-selected metadata, or other user-selected query parameters.

However, neither these cited sections nor the remainder of Bobrow, disclose scanning a paper document and using the captured image to directly query an image database to find matching document images. Although Bobrow's document corpus may be populated with scanned document images, Bobrow never teaches matching a particular scanned image to the database of such scanned images.¹⁶ Images of paper documents are not structured, user-selected query parameters like genre models, or metadata, or the like disclosed by Bobrow. Nor does Bobrow, in the cited sections or elsewhere, disclose that action information is associated with images stored in an image database, nor that such action information associated with a document matching a captured image of a paper document is combined with a user option associated with the captured image to produce an instruction performed by a computer.

In summary, Bobrow neither discloses, teaches, nor suggests (i) capturing an image of paper document and matching the captured image to an image in an image database, and (ii) producing and performing an action related to the matched document in the image database, where the action is determined in dependence both on action information associated with the document in the database and on a user selected option.

Thus, the combination of Martin and Bobrow is respectfully submitted not to disclose or teach, *inter alia*, all the elements and their arrangement as recited in independent claims 1 and 12. Thus these references do not establish a *prima facie* case of obviousness of these claims. Similarly, the remaining claims 2-8 and 13-19, which are dependent on parent independent claims 1 and 12, respectively, are also not obvious over Martin and Bobrow, because they

¹⁵ Bobrow, col. 21, line 8 to col. 23, line 55.

¹⁶ See Bobrow at, for example, col. 8, lines 44-54.

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include all the elements of their parent independent claims arranged as in these independent claims.

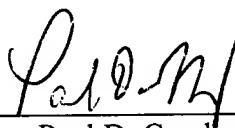
CONCLUSION

The Applicant respectfully requests entry of the foregoing amendments and remarks into the file of the above-captioned application. The Applicant believes that each ground for rejection or objection has been successfully overcome or obviated and that all the pending claims are in condition for allowance. He earnestly requests reconsideration and withdrawal of the Examiner's objection and rejections and allowance of the application.

If any issues remain, the Applicant invites the Examiner to telephone the undersigned to discuss the same and to arrange for prompt and efficient handling of the above-captioned application.

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